


Lifespan assay

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 An abbreviated version of this protocol was published in eLIFE in Nov 2018

Translation attenuation by minocycline enhances longevity and proteostasis in old post-stress-responsive organisms

DOI: 10.7554/eLife.40314

Detailed protocol

Hi There,

we have a JoVe article on how we run the assay, which explains everything in detail (see below). We made it free to access so you should have no trouble. The only thing missing is that for the eLife paper we killed the bacteria by gamma irradiation to avoid minocycline affecting lifespan through killing bacteria. How long you have to irradiate the bacteria to kill them depends on your irradiation source. If you have an X-ray machine it is about 2h, if you have caesium source it is somewhere between 10 to 20h dependnet on the age of the source. Any other way killing the bacteria (sodium azide, quadruple antibiotics, UV, heat, etc.) did not reliably kill large amounts of bacteria in a way that is reliable.

Atricle

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3197298/>

cheers Michael

How to cite: (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Petrascheck, M. (2020). Lifespan assay. Bio-protocol Preprint. bio-protocol.org/prep539.
2. Solis, G. M., Kardakaris, R., Valentine, E. R., Bar-Peled, L., Chen, A. L., Blewett, M. M., McCormick, M. A., Williamson, J. R., Kennedy, B., Cravatt, B. F. and Petrascheck, M.(2018). Translation attenuation by minocycline enhances longevity and proteostasis in old post-stress-responsive organisms. eLIFE. DOI: [10.7554/eLife.40314](https://doi.org/10.7554/eLife.40314)

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